NORTH Dakota | Health

Be Legendary.™

Division of Microbiology

2019 Directory of Services

DIRECTORY OF SERVICES

TABLE OF CONTENTS

Date of last Revision: 8/2019

NORTH Dakota | Health

Be Legendary.™

NORTH Dakota | Health
Be Legendary.™

DIVISION OF MICROBIOLOGY

Christie Massen, Ph.D., M.S., MLS, Division Director
Laurie Linz, MD, CLIA Laboratory Director

GENERAL INFORMATION

CLIA NUMBER: 35DO691722

The *2019 Directory of Services* contains a listing of services and tests provided by the Division of Microbiology. Each test entry contains a brief explanation of the test, stability, transport temperature, turn around time, type of specimen required, cost and CPT code(s).

All specimens submitted to the Division of Microbiology should be collected and handled with care. Improperly collected or inadequate specimens may give laboratory results of questionable value. Complete information is essential and should be supplied on the request form accompanying the sample.

Testing may be delayed if all requested information is not submitted with the specimen.

The Division of Microbiology provides collection kits and mailing containers as described on our website. Infectious substances must be mailed in containers that meet federal regulations. Please refer to the IATA Guidance Diagrams on our Website for Infectious Substances or contact the Division of Microbiology for assistance.

***FEES AND SERVICES ARE SUBJECT TO CHANGE BY THE DIVISION OF* MICROBIOLOGY**

Telephone 701.328.6272
www.ndhealth.gov/microlab

******

A division of the North Dakota Department of Health
Medical Services Section

SPECIMEN LABELING/REJECTION POLICY

All clinical primary specimen containers must have a patient name, along with a second unique identifier, such as date of birth, medical record number, and accession number.

Appropriate laboratory slips must accompany each specimen and must contain the following information:

1. Patient name
    a. Anonymous testing will not be performed
    b. Specimens labelled with obvious pseudo-names will not be accepted
2. Date of birth
3. Physician
4. Institution
5. Identification code
6. Type of specimen
7. Test requested
8. Principle symptoms
9. Date of collection

Criteria for specimen rejection:

1. Recommended transport/hold time exceeded
2. Specimen damaged (ex: leaked or broken)
3. Improper specimen (ex: contaminated, inadequate collection, wrong body site or duplicate sample)
4. Unsuitable for request
5. Specimens of insufficient amount (QNS)
6. Unlabeled or mislabeled specimens

Contact Information

North Dakota Department of Health
Division of Microbiology
2635 East Main Ave.
P.O. Box 5520
Bismarck, ND 58506
www.ndhealth.gov/microlab

Administration

State Health Officer
Mylynn Tufte, MBA, MSIM, BSN
mylynntufte@nd.gov

CLIA Laboratory Director
Laurie Linz, MD
llinz@primecare.org

Microbiology Director
Christie Massen PhD, MS, MLS
701.328.6288
clmassen@nd.gov

QA & CLIA Program Manager
Heather Sease
701.328.6279
hrsease@nd.gov

Immunology/Virology Program Manager
Kristie Schwarzkopf
701.328.6283
kschwarzkopf@nd.gov

General Microbiology/Environmental Program Manager
Lisa Well
701.328.6292
lwell@nd.gov

Biothreat Program Manager
Stacey Alexander
701.328.6284
smalexander@nd.gov

Main Laboratory Phone Number: 701.328.6272

Fax: 701.328.6280

Billing Inquiries: 701.328.6276

After normal work hours, contact the on-call microbiologist directly at 701.400.2772, or if Bioterrorism is suspected call State Radio at 1-800-472-2121 to speak to the case manager.

Laboratory Testing and Fee Schedule

Laboratory Testing: Table of Contents

Laboratory Testing: Table of Contents

TEST	EXPLANATION	COST
Arboviral Encephalitis Panel IFA and EIA CPT CODES: 86654 - WEE 86652 - EEE 86653 - SLE 86651 - California 86788 - West Nile	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 5 Days; Refrigerated: 5 Days; Frozen: >5 Days **Normal Value:** West Nile Virus EIA - Negative Western Equine, Eastern Equine, St. Louis, California Group IFA < 1:16 **Turn Around Time**: 3 days	$130
Bacterial - Aerobic Reference Culture CPT CODE: 87077	**Acceptable Specimen:** Pure isolate in appropriate tubed transport medium or Amies (with charcoal) transport medium. Plates not accepted. **Stability:** Ambient: 7 days; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Not applicable **Turn Around Time**: 7 days	$55
Bacterial - Anaerobic Reference Culture CPT CODE: 87076	**Acceptable Specimen:** Pure isolate in anaerobic tubed medium such as Anaerobic Thio, Amies (with charcoal) transport medium, PORT-A-CUL tubes, etc. Plates not accepted. **Stability:** Ambient: 7 days; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Not applicable **Turn Around Time**: 7 days	$55
NEW ***Bordetella species* HDA** CPT CODE: 87798	**Acceptable Specimen:** Nasopharyngeal specimen, in universal transport media, provided in kit. This Helicase-Dependent Amplification (HDA) assay simultaneously tests for the following pathogens: *Bordetella parapertussis* and *Bordetella pertussis* Contact the Division of Microbiology for transport kits. Refer to Specimen Collection and Handling Section for instructions. **Stability:** Ambient: 2 days; Refrigerated: 4 days; Frozen: 5 months **Normal Value:** Negative **Turn Around Time**: 1 day	$60

TEST	EXPLANATION	COST
Brucella Antibody Agglutination CPT CODE: 86000	**Acceptable Specimen:** 2 ml acute and convalescent sample (3 weeks post onset) phase sera recommended **Stability:** Ambient: Unacceptable; Refrigerated: 4 hours; Frozen: >4 hours **Normal Value:** Negative **Turn Around Time**: 2 days	$25
California group Encephalitis Ab IFA	Refer to Arboviral Encephalitis Panel	
Carbapenem Resistance Gene Screen CPT CODE: 87801	**Acceptable Specimen:** Rectal swab specimen collected with BD BBL liquid Stuart's dual culture swab **Stability:** Ambient: 5 days; Refrigerated: 5 days; Frozen: Unacceptable **Normal Value:** KPC, NDM, VIM, OXA-48, and IMP Not Detected **Turn Around Time**: 1 day	$60
Chlamydia Culture CPT CODE: 87110 - Culture 87140 - ID	**Acceptable Specimen:** Obtain epithelial cells from infected site. Place swab specimen into viral transport medium immediately. **Stability:** Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative **Turn Around Time**: 7 days	$50
***Chlamydia trachomatis* and *Neisseria gonorrhoeae* PCR** CPT CODE: 87491 - Chlamydia 87591 - Gonorrhoeae	**Acceptable Specimen:** Endocervical, oral, rectal, urine, vaginal, or male urethral specimen in Abbott multi specimen collection kit • Patient must not urinate for at least 1 hour prior to sampling • Collect 20 to 30 ml of a first-catch urine • Use the transfer pipette provided to fill the collection tube to a volume within the two black lines on the side of the tube Contact the Division of Microbiology for collection kits. **Stability:** Ambient: 14 days; Refrigerated: 14 days; Frozen: >14 days **Normal Value:** Negative **Turn Around Time:** 1 day *Correctional and Rehabilitation facilities, and Safety Net facilities will be charged $10	$20*

TEST	EXPLANATION	COST
Cytomegalovirus IgM & Total Ig IFA CPT CODE: 86644 -Total Ig 86645 - IgM	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:8 **Turn Around Time:** 1 day	$30
Cytomegalovirus PCR CPT CODE: 87496	**Acceptable Specimen:** Throat swab and biopsy in viral transport medium. CSF, urine, bronchial specimens, amniotic fluid and plasma in sterile container. **Stability:** Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Negative **Turn Around Time:** 3 days	$60
Eastern Equine Encephalitis Ab IFA	Refer to Arboviral Encephalitis Panel	
Encephalitis Panel IFA and EIA CPT CODES: 86694 – Herpes EIA 86735 – Mumps IFA 86762 – Rubella EIA 86765 – Measles IFA 86787 – VZV IFA	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** < 1:8 or Negative **Turn Around Time**: 1 day	$205
 **Enteric Panel PCR** CPT CODE: 87506	**Acceptable Specimen:** 1 ml stool in Cary-Blair medium This assay simultaneously tests for the following pathogens: Campylobacter Group, Norovirus (GI/GII), Rotavirus A, Salmonella species, Shiga-like Toxin producing *E. coli* (stx1/stx2), Shigella species, Vibrio Group, and *Yersinia enterocolitica* **Stability: Cary Blair –** Ambient: Unacceptable; Refrigerated: 2 days; Frozen: Unacceptable **Normal Value:** Not Detected **Turn Around Time:** 2 days	$95
Enterovirus PCR CPT CODE: 87498	**Acceptable Specimen:** Nasopharyngeal, skin lesion material, and throat in viral transport medium. CSF and stool in sterile container. **Stability:** Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Negative **Turn Around Time:** 3 days	$60

TEST	EXPLANATION	COST
Enterovirus D68 PCR CPT CODE: 87498	**Specimen for PCR testing will be referred to a reference laboratory**. **Acceptable Specimen:** Nasopharyngeal, oropharyngeal swab, nasal wash, nasal aspirate in viral transport medium. **Stability:** Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Negative **Turn Around Time:** 3 days	$100
Epstein-Barr IgM and Total Ig IFA CPT CODE: 86665	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:8 **Turn Around Time:** 1 day	$30
Fluorescent Treponemal Antibody CPT CODE: 86780	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Nonreactive **Turn Around Time:** 2 days	$25
***Francisella tularensis* Antibody Serum Agglutination** CPT CODE: 86000	**Acceptable Specimen:** 2 ml acute and convalescent (3 weeks post onset) phase sera **Stability:** Ambient: Unacceptable; Refrigerated: 4 hours; Frozen: >4 hours **Normal Value:** Negative **Turn Around Time:** 2 days	$50
Fungal Primary Culture CPT CODES: 87101 -Skin, Hair, Nails 87102 -Other Source 87103 - Blood 87106 - Yeast ID 87107 - Mold ID	**Acceptable Specimen:** Sterile containers or on Sabouraud Dextrose Agar. Plates will not be accepted. Contact the Division of Microbiology for assistance with systemic isolates such as histoplasma, coccidioides and blastomyces. **Stability:** Ambient: 10 days; Refrigerated: 10 days; Frozen: Unacceptable **Normal Value:** No fungi isolated **Turn Around Time:** Negative culture - 2 weeks Positive culture - 2 to 6 weeks	$55

TEST	EXPLANATION	COST
Fungal Reference Culture CPT CODE: 87106 - Yeast 87107 - Mold	**Acceptable Specimen:** Pure isolate in tubed medium such as Sabouraud Dextrose Agar or Amies transport medium. Plates not accepted. Contact the Division of Microbiology for assistance with systemic isolates such as histoplasma, coccidioides and blastomyces. **Stability:** Ambient: 10 days; Refrigerated: 10 days; Frozen: Unacceptable **Normal Value:** Not applicable **Turn Around Time:** 2 to 6 weeks	$55
Handling Fee CPT CODE: 12345	Handling fees are dependent on test requested. Call the Division of Microbiology for test specific handling fee information.	$15 ambient air $30 with ice packs
Hantavirus Antibody Enzyme Capture-IgM ELISA CPT CODE: 87449	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Refrigerated: 5 days; Frozen: >5 days **Normal Value:** Negative *Positive results are sent to CDC for Confirmation. **Turn Around Time:** 2 days	$60
Hepatitis A IgM Antibody CMIA CPT CODE: 86709	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	$26
Hepatitis A, B & C Panel (Acute) CMIA CPT CODES: 87340 -HBsAg 86705 -AntiHBc IgM 86709 -AntiHAV IgM 86803 -Anti-HCV	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 6 days; Frozen: >6 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	$104

TEST	EXPLANATION	COST
Hepatitis B & C Panel (Acute) CMIA CPT CODES: 87340 - HBsAg 86705 - AntiHBc IgM 86803 - Anti-HCV	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 6 days; Frozen: >6 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	$78
Hepatitis B Core Antibody, Total Ig CMIA CPT CODE: 86704 - Total Ig	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive **Turn Around Time:**1 day	$26
Hepatitis B Core Antibody, IgM CMIA CPT CODE: 86705	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive **Turn Around Time:**1 day	$26
Hepatitis B Surface Antibody Immune Status (Anti-HBs) CMIA CPT CODE: 86706	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Reactive **Turn Around Time:** 1 day	$26
Hepatitis B Surface Antigen (HBsAg) CMIA CPT CODE: 87340	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 1 day; Refrigerated: 6 days; Frozen: >6 days **Normal Value:** Nonreactive **Turn Around Time**: 1 day	$26
Hepatitis C Virus Antibody, Total Ig (Anti-HCV) CMIA CPT CODE: 86803	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 3 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive *Positive tests will reflex to Hepatitis C Virus RNA **Turn Around Time:** 1 day	$26

TEST	EXPLANATION	COST
Hepatitis C Virus Genotyping CPT CODE: 87902	**Acceptable Specimen**: 3 ml serum or 5 ml whole blood **Stability: Serum -** Ambient: 1 day; Refrigerated: 3 days; Frozen: >3 days **Stability: Whole Blood -** Ambient: 6 hours; Refrigerated: 6 hours; Frozen: Unacceptable **Normal Value:** Not Applicable **Turn Around Time:** Weekly	$155
Hepatitis C Virus RNA (Quantitative) CPT CODE: 87522	**Acceptable Specimen**: 3 ml serum or 5 ml whole blood **Stability: Serum -** Ambient: 1 day; Refrigerated: 3 days; Frozen: >3 days **Stability: Whole Blood -** Ambient: 6 hours; Refrigerated: 6 hours; Frozen: Unacceptable **Normal Value:** Not Applicable **Turn Around Time:** Weekly	$55
Herpes Simplex Virus Antibody IgM EIA CPT CODE: 86694	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative **Turn Around Time:** 1 day	$40
NEW **Herpes Simplex Virus 1 & 2 and *Varicella zoster* HDA** CPT CODE: Herpes – 87529 Varicella - 87801	**Acceptable Specimen:** Swab, in viral transport medium, from any lesion. **Stability:** Ambient: 2 days; Refrigerated: 7 days; Frozen: 7 days **Normal Value:** Negative **Turn Around Time**: 1 Day	$60

TEST	EXPLANATION	COST
HIV-1, 2 Antibody/HIV-1 p24 Antigen Combo CMIA CPT CODE: 87389 - Screen 86689 - Confirmation	**Acceptable Specimen:** 3 ml serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive *Confirmatory testing will be performed, at no additional charge, on all reactive specimens following current CDC and CLSI guidelines for 4th Generation HIV Ab/Ag Combo tests. **Turn Around Time:** 1 day	$10
HIV-1, 2 Antibody/HIV-1 p24 Antigen Confirmation CPT CODE: 86689	**Acceptable Specimen:** 1 ml serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive **Turn Around Time:** 2 days	$40
Immune Screens (MMR) CPT CODE: 86765- Measles 86735- Mumps 86318 – Rubella 86787 - Varicella	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Measles > 1:16 Mumps > 1:16 Rubella – Immune Varicella > 1:16 **Turn Around Time**: Tuesday and Thursday	$116
Influenza Virus Type A & B PCR and Subtype Confirmation CPT CODE: 87501 87501 x 8	**Acceptable Specimen:** Specimen in viral transport medium Refer to Specimen Collection and Handling Section for instructions. **Sub-typing:** A - H3, 2009 H1N1, H5, H7 B - Yamagata, Victoria **Stability:** Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Not Applicable **Turn Around Time:** 3 days	No Charge
Legionella Culture CPT CODES: 87081 - Presum Cult 87147 - Culture ID	**Acceptable Specimen:** Bronchial, lung, sputum, tissue in sterile container **Stability:** Ambient: Unacceptable; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Negative **Turn Around Time:** 7 days	$55

TEST	EXPLANATION	COST
Lyme Disease (*Borrelia burgdorferi*) Antibody, Total Ig EIA CPT CODE: 86618	**Acceptable Specimen:** 2 ml of serum **Stability:** Ambient: 8 hours; Refrigerated: 10 days; Frozen: >10 days **Normal Value:** Negative *Positive & Equivocal results are sent to CDC for Confirmation. **Turn Around Time:** 2 days	$76
Measles Virus (Rubeola) Antibody, IgM and Total Ig IFA CPT CODE: 86765	**Acceptable Specimen:** 2 ml acute phase serum Include immunization history on test request form. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:8 **Turn Around Time:** 1 day	$30
Measles Virus (Rubeola) Antibody, IgG IFA CPT CODE: 86765	**Acceptable Specimen:** 2 ml serum Include immunization history on test request form. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** > 1:16 **Turn Around Time:** Tuesday and Thursday	$30
Measles Virus (Rubeola) PCR CPT CODE: 87798	**Acceptable Specimen:** Nasopharyngeal swabs or aspirates, nasal swabs, throat swabs, buccal swabs in viral transport medium. 50 ml urine in sterile container. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Negative **Turn Around Time**: 2 days	$60
Mumps Virus Antibody IgM and Total Ig IFA CPT CODE: 86735	**Acceptable Specimen:** 2 ml acute phase serum Include immunization history on test request form. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:8 **Turn Around Time:** 1 day	$30

TEST	EXPLANATION	COST
Mumps Virus Antibody, IgG IFA CPT CODE: 86735	**Acceptable Specimen:** 2 ml serum Include immunization history on test request form. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** > 1:16 **Turn Around Time:** Tuesday and Thursday	$30
Mumps PCR CPT CODE: 87798	**Acceptable Specimen:** Buccal swabs (preferred), throat swabs, and nasopharyngeal swabs or aspirates in viral transport medium. Urine in sterile container. **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Negative **Turn Around Time:** 2 days	$60
Mycobacteria Primary Culture CPT CODES: 87206-Direct smear 87015 - Concentration 87116 - Presum Cult 87556 - Mtb/RIF PCR	**Acceptable Specimen:** Sterile container Contact the Division of Microbiology for collection and mailing kit. Refer to Specimen Collection and Handling Section for instructions. All new positive mycobacterium direct smears on sputum, bronchial lavage, and bronchial wash samples will automatically reflex to perform the *Mycobacterium tuberculosis/*Rifampin PCR test. **Stability: Whole Blood/Bone Marrow -** Ambient: 7 days; Frozen: Unacceptable **Stability: Other -** Ambient: Unacceptable; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Mycobacteria Culture **-** No Mycobacteria isolated AFB Smear - No AFB seen **Turn Around Time:** 2 to 8 weeks	No Charge
Mycobacteria Reference Culture CPT CODES: 87118 -Mycobacteria ID	**Acceptable Specimen:** Isolate on tubed solid medium such as LJ slants, 7H10 slants, etc. Plates or liquid medium not accepted. **Stability:** Ambient: 4 days; Refrigerated: 7 days fresh growth; Frozen: Unacceptable **Normal Value:** Not applicable **Turn Around Time:** 2 to 6 weeks	$55

TEST	EXPLANATION	COST
Mycobacteria Susceptibility	**Isolates for susceptibility testing will be referred to a reference laboratory**. Susceptibility testing on *M .tuberculosis* will be submitted on all isolates from patients considered to be a new case as part of the initial culture procedure. *Susceptibility testing on mycobacteria isolates other than *M. tuberculosis* will be submitted to a reference laboratory upon request with a handling fee. **Normal Value:** Susceptible **Turn Around Time:** Not applicable	No Charge*
***Mycobacterium tuberculosis/* Rifampin Nested Real Time PCR** CPT CODE: 87556	**Acceptable Specimen:** 1ml Sputum 2 samples per patient in a 3 month period or 12 months after the end of treatment The PCR test is only intended for use on specimens from patients showing signs and symptoms consistent with active pulmonary tuberculosis. **The PCR test must be performed in conjunction with mycobacterial culture.** **Stability:** Ambient: 3 days; Refrigerated: 10 days; Frozen: Unacceptable **Normal Value:** MTB Not detected **Turn Around Time:** Test performed as needed	No Charge
***Mycoplasma pneumoniae* Antibody, IgM IFA** CPT CODE: 86738	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:64 **Turn Around Time:** 1 day	$30
***Neisseria gonorrhoeae* PCR**	Can only be ordered as part of a dual test for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. Refer to ***Chlamydia trachomatis* and *Neisseria gonorrhoeae* PCR**	

TEST	EXPLANATION	COST
Parasites, Blood Giemsa Stain CPT CODE: 87207 - Thin 87015 - Thick	**Acceptable Specimen:** At least two thin blood films and two thick films made from fresh blood are preferred Blood containing anticoagulant (EDTA) can be used if films are prepared within one hour. Air dry and send in protected container to prevent breakage. The submission of a single blood specimen will not rule out blood parasites. Additional blood specimens are recommended. Include EDTA whole blood and serum tubes for possible referral. Pertinent travel history is requested. **Stability:** Ambient: 7 days; Frozen: Unacceptable **Normal Value:** No parasites seen **Turn Around Time:** 2 days	$29
Parasites, Stool CPT CODES: 87177 -Conc. and ID 87207 - Trichrome 87206 - Acid Fast	**Acceptable Specimen:** Stool specimen in Total-Fix preservative includes wet mount, trichrome stain and acid-fast stain (for *Cryptosporidium*, *Cyclospora* and *Cystoisospora belli*). Microsporidia examination is not included. If fresh stool sample is collected, sample must be placed in Total-Fix collection container within 30 minutes. Two specimens are recommended, while three specimens offer the best chance of organism recovery. Antibiotics such as metronidazole or tetracycline may interfere with the recovery of intestinal parasites, particularly the protozoa. If specimen is collected in formalin, trichrome stain will not be performed. *If Schistosomiasis is suspected, please send urine and stool specimens. Contact the Division of Microbiology for collection kits. **Stability:** Ambient: 7 days; Frozen: Unacceptable **Normal Value:** No parasites seen **Turn Around Time:** 2 days	$29
Pertussis PCR	Refer to *Bordetella species* HDA	

TEST	EXPLANATION	COST
Prenatal Hepatitis B Surface Antigen CMIA CPT CODE: 87340	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 1 day; Refrigerated: 6 days; Frozen: >6 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	$10
Q Fever, Total Ig IFA (*Coxiella burnetii*) CPT CODE: 86638	**Serum for IFA testing will be referred to a reference laboratory**. **Acceptable Specimen:** 2 ml acute and convalescent (3 weeks post onset) phase sera **Stability:** Ambient: 1 day; Refrigerated: 6 days; Frozen: >6 days **Normal Value:** < 1:256 or a less than fourfold increase in titer between acute and convalescent sera. **Turn Around Time:** 7 days	$22
Quantiferon TB Gold Plus (*Mycobacterium tuberculosis*) CPT CODE: 86481	**Acceptable Specimen:** Four tube blood collection kit or 5-6 ml lithium heparin without gel Call the Division of Microbiology for a collection kit**.** Refer to Specimen Collection and Handling Section for instructions. Samples must be received Monday through Thursday. **Stability:** Refer to Specimen Collection and Handling Section **Normal Value:** Negative **Turn Around Time:** 3 days	$25
Rabies Direct Antigen Detection DFA	**Acceptable Specimen:** Full cross section of brain stem and cerebellum Contact the Division of Microbiology for assistance. Please call for consultation if animal brain cannot be removed prior to submission. **Stability:** Ambient: Unacceptable; Refrigerated: 2 days; Frozen: Unacceptable **Normal Value:** Negative **Turn Around Time:** 1 day	No Charge

TEST	EXPLANATION	COST
NEW **Respiratory Panel PCR** CPT CODE: 87633-Viruses 87801 -Bordetella	**Acceptable Specimen:** Nasopharyngeal swabs in viral transport medium This assay simultaneously tests for the following pathogens: Influenza A,H1,H3, Influenza B, Respiratory Syncytial Virus (RSV) A & B, Parainfluenza 1, 2, 3 & 4, Human Metapneumovirus, Rhinovirus, Adenovirus, *Bordetella parapertussis/bronchiseptica, Bordetella holmesii,* and *Bordetella pertussis*. **Stability:** Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Not Detected **Turn Around Time:** 2 days	$85
Rickettsia PCR CPT CODE: 87798	**Acceptable Specimen:** Venous whole blood preserved with EDTA or acid citrate dextrose Solution A (ACD-A) This assay is intended for the qualitative detection and differentiation of *R. rickettsii* and *R. prowazekii* DNA. Specimens can be collected from individuals with signs or symptoms indicative of Rocky Mountain Spotted Fever or epidemic typhus and epidemiological risk factors consistent with potential exposure. **Stability:** Ambient: Unacceptable; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Negative **Turn Around Time:** 2 days	$60
Rocky Mountain Spotted Fever (Rickettsia) Antibody IFA CPT CODE: 86757	**Acceptable Specimen:** 2 ml acute and convalescent (3 weeks post onset) phase sera **Stability:** Ambient: 1 day; Refrigerated: 3 days; Frozen: >3 days **Normal Value:** < 1:64 or less than fourfold increase in titer between acute and convalescent sera. **Turn Around Time:** 1 day	$30
RPR - Rapid Plasma Reagin CPT CODE: 86592	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive *Reactive RPR can be confirmed by TP-PA at facilities request. Contact the Division of Microbiology to order. **Turn Around Time:** 1 day	$8

TEST	EXPLANATION	COST
Rubella (German Measles) Virus IgM Antibody EIA CPT CODE: 86762	**Acceptable Specimen:** 2 ml acute phase serum Include immunization history on test request form. **Stability:** Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative **Turn Around Time:** 1 day	$75
Rubella Virus Immune Status Total Ig Antibody Latex Agglutination CPT CODE: 86318	**Acceptable Specimen:** 2 ml serum **Stability:** Refrigerated: 8 days; Frozen: >8 days **Normal Value:** Immune **Turn Around Time:** 1 day	$26
Rubeola (Measles) Virus	Refer to Measles Virus	
St. Louis Encephalitis Ab IFA	Refer to Arboviral Encephalitis Panel	
Syphilis Testing Panel CPT CODE: 86780 - CMIA 86592 - RPR 86780 - TPPA	**Acceptable Specimen:** 2 ml serum This panel starts with chemiluminescent microparticle immunoassay screen (CMIA). If positive cases are identified, follow up testing will include RPR, and TPPA as needed. **Stability:** Ambient: 3 days; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day *$16 charge when reflex testing is needed for reactive cases	$8*
TORCH Antibodies, IgM and Total Ig IFA/EIA CPT CODE: 86777 - Toxo IFA 86762 - Rubella EIA 86645 - CMV IFA 86694 – Herpes EIA	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Toxoplasma < 1:16 CMV< 1:8 Herpes Negative Rubella Negative **Turn Around Time:** 1 day	$175

TEST	EXPLANATION	COST
***Toxoplasma gondii* Antibody, IgM and Total Ig IFA** CPT CODE: 86777 - Total Ig 86778 - IgM	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** < 1:16 **Turn Around Time:** 1 day	$30
***Treponema pallidum* Particle Agglutination** CPT CODE: 86780	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 3 days; Refrigerated: 5 days; Frozen: >5 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	No Charge
NEW ***Trichomonas vaginalis* HDA** CPT CODE: 87801	**Acceptable Specimen: <u>Females Only</u>** 20-30 mL urine that has not been voided 1 hour prior to collection. • Patient should not have urinated for at least 1 hour prior to specimen collection. • Patients should not cleanse the labial area prior to providing the specimen. • Collect 20 to 30 mL, first-catch of the initial urine stream, into a urine collection cup free of any preservatives. **Stability:** Ambient: 24 hours; Refrigerated: 7 days; Frozen: Unacceptable **Normal Value:** Negative **Turn Around Time:** 1 day	$40
Trioplex PCR CPT CODE: 87800	**Acceptable Specimen:** 1.5 mL serum, 1.0 mL urine, CSF and amniotic fluid *Must meet CDC requirements. **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Zika Negative Chikungunya Negative Dengue Negative **Turn Around Time:** 7 days	No Charge
Varicella zoster Virus Antibody, IgM and Total Ig IFA CPT CODE: 86787	**Acceptable Specimen:** 2 ml acute phase serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** < 1:8 **Turn Around Time:** 1 day	$30

TEST	EXPLANATION	COST
Varicella zoster Virus Antibody, IgG IFA CPT CODE: 86787	**Acceptable Specimen:** 2 ml serum **Stability:** Ambient: 1 day; Refrigerated: 7 days; Frozen: >7 days **Normal Value:** > 1:16 **Turn Around Time:** Tuesday and Thursday	$30
NEW **Varicella zoster/Herpes Simplex Virus 1 & 2 HDA** CPT CODE: Herpes – 87529 Varicella - 87801	**Acceptable Specimen:** Swab, in viral transport medium, from any lesion. **Stability:** Ambient: 2 days; Refrigerated: 7 days; Frozen: 7 days **Normal Value:** Negative **Turn Around Time**: 1 Day	$60
VDRL (Syphilis screen) Slide Flocculation CPT CODE: 86592	**Acceptable Specimen:** 1 ml spinal fluid **Stability:** Ambient: 2 days; Refrigerated: 14 days; Frozen: >14 days **Normal Value:** Nonreactive **Turn Around Time:** 1 day	$15
Western Equine Encephalitis Ab IFA	Refer to Arboviral Encephalitis Panel	
West Nile Virus Antibody, IgM EIA CPT CODE: 86788	**Acceptable Specimen:** 2 ml late acute phase serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative **Turn Around Time:** 3 days *Free of charge June 1st through October 31st, 2019	$60*

TEST	EXPLANATION	COST
Zika Virus IgM EIA CPT CODE: 86794	**Acceptable Specimen:** 1.5 mL serum **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative All positive results will be forwarded to CDC for confirmation. **Turn Around Time:** 7 days	$100
Zika Virus PCR CPT CODE: 87662	**Acceptable Specimen:** 1.5 mL serum, 1.0 mL urine **Stability:** Ambient: 8 hours; Refrigerated: 2 days; Frozen: >2 days **Normal Value:** Negative **Turn Around Time:** 7 days	$51

SPECIFIC TESTS NOT IN THIS LISTING MAY BE AVAILABLE.
CONSULT THE DIVISION OF MICROBIOLOGY AT 701.328.6272.

FOR THE MOST ACCURATE CPT CODE ASSIGNMENT, PLEASE REFER TO THE 2019 CURRENT PROCEDURAL TERMINOLOGY MANUAL.

Mandatory Reportable Conditions

North Dakota Department of Health

Mandatory Reportable Conditions

If highlighted red, report immediately: 800.472.2180 or 701.328.2378

Report all other conditions within 7 days

Anaplasmosis
Anthrax ◈ ☣
Arboviral infection (other)
Babesiosis
Botulism ◈ ☣
Brucellosis ◈ ☣
Campylobacteriosis
Carbapenem-resistant organisms
- *Enterobacteriaceae* ◈
- *Pseudomonas aeruginosa* ◈

Cancer +
Chikungunya virus disease
Chickenpox (varicella)
Chlamydial infection
Cholera ◈
Clostridium perfringens intoxication ◈
Coccidioidomycosis
Creutzfeldt-Jakob disease
Cryptosporidiosis
Dengue
Diphtheria ◈
Eastern equine encephalitis ☣
E. coli (Shiga toxin-producing) ◈
Ehrlichiosis
Foodborne/waterborne outbreaks
Giardiasis
Glanders ◈ ☣
Gonorrhea
Haemophilus influenzae (invasive) ◈
Hantavirus ◈
Hemolytic uremic syndrome
Hepatitis A
Hepatitis B
Hepatitis C*
Hepatitis D
Hepatitis E
HIV/AIDS infection** ◈
Influenza
- Seasonal
- Suspect novel, PCR influenza A unsubtypable ◈

Jamestown Canyon virus disease
La Crosse encephalitis
Laboratory incidents with possible release of category A agents or novel influenza virus ☣
Lead level results (all)
Legionellosis
Listeriosis ◈
Lyme disease
Malaria ◈
Measles (rubeola) ◈
Melioidosis ◈ ☣
Meningococcal disease (invasive) ◈
Mumps
Nipah virus infections ◈ ☣
Nosocomial outbreaks
Novel severe acute respiratory illness ◈ ☣
Pertussis
Plague ◈ ☣
Poliomyelitis ◈
Powassan virus disease
Pregnancy in person infected with:
- Hepatitis B
- HIV

Q fever ◈ ☣
Rabies
- Animal
- Human ◈

Rocky Mountain spotted fever
Rubella ◈
Salmonellosis ◈
Scabies outbreaks in institutions
Shigellosis ◈
Smallpox ◈ ☣
Staphylococcus aureus
- Vancomycin-resistant and intermediate resistant (VRSA and VISA) – any site ◈

Staphylococcus enterotoxin B intoxication ◈ ☣
St. Louis encephalitis
Streptococcus pneumoniae infection (invasive) ◈
Syphilis
Tetanus
Tickborne disease (other)
Trichinosis
Tuberculosis
- Disease ◈
- Infection

Tularemia ◈ ☣
Tumors of the central nervous system +
Typhoid fever ◈
Unexplained or emerging critical illness/death
Unusual disease clusters
Vibriosis ◈
Viral hemorrhagic fevers ☣
Western equine encephalitis
West Nile virus
Weapons of Mass Destruction suspected event ☣
Yellow fever ◈
Zika virus

How to Report:

- Secure website: www.ndhealth.gov/disease/reportcard/
- Telephone: 701.328.2378 or 800.472.2180
- Secure Fax: 701.328.0355
- Electronic laboratory reporting: www.ndhealth.gov/disease/ELR/

◈ Send isolate or sample to North Dakota Department of Health Microbiology Laboratory.
☣ This is a Select Agent when confirmed. Notify the Microbiology Laboratory at 701.328.6272. Report any possible lab exposures.
+ Submit report to the North Dakota Cancer Registry. Call 800.280.5512 for assistance.
***** Hepatitis C: All positive/reactive test results, hepatitis C genotypes, all hepatitis C nucleic acid test results (including nondetectable)
****** HIV/AIDS: Any positive/reactive test results, gene sequencing and drug resistance patterns, all HIV nucleic acid test results (including nondetectable), all CD4 test results

North Dakota Department of Health
Mandatory Reportable Condition Testing

Refer to North Dakota Administrative Code 33-03-01 (Statutory Authority NDCC 23-07-01) for a complete list of mandatory reportable conditions.

There is No Charge for Mandatory Reportable Condition testing.

Test	Source/Collection	Comments
Carbapenem Resistant Organism Confirmation	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted. *****Please submit antimicrobial susceptibility results from instrument printout.	A report containing test results to support infection prevention measures will be issued to the submitting facility.
Corynebacterium diphtheriae **Confirmation**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	A report with the organism identification will be issued to the submitting facility.
Escherichia coli **O157 Serotyping**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted. *Facilities using molecular methods without conventional culture may send original stool sample. *Cultures of verotoxigenic *E. coli* need to be shipped as a Category A specimen.	A report with serotyping results will be issued to the submitting facility.
Haemophilus influenzae **Serotyping**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	The isolate will be forwarded to Minnesota Public Health Laboratory for testing. A report with serotyping results will be issued to the submitting facility.
Malaria Confirmation	**Acceptable Specimen:** Whole blood sample in EDTA prior to treatment plus thick and thin blood films made from fresh blood or EDTA (if prepared within one hour) if available.	The sample will be forwarded to CDC for species confirmation and evaluation of emerging drug resistance. A report will be issued to the submitting facility.
Neisseria meningitidis **Serogrouping**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	The isolate will be forwarded to Minnesota Public Health Laboratory for testing. A report with serotyping results will be issued to the submitting facility.

Salmonella **Serotyping**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted. *Facilities using molecular methods without conventional culture may send original stool sample.	A report indicating if the isolate is a Salmonella species will be issued to the submitting facility. * Serotypes will no longer be reported back to the submitting facility.
Shigella **Serotyping**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted. *Facilities using molecular methods without conventional culture may send original stool sample.	A report with serotyping results will be issued to the submitting facility.
Shiga toxin-producing ***Escherichia coli*** **confirmation**	**Acceptable Specimen:** Shiga toxin positive specimen in appropriate transport media (MacConkey broth, GN broth, etc.) *Facilities using molecular methods without conventional culture may send original stool sample. *Cultures of verotoxigenic *E. coli* need to be shipped as a Category A specimen.	A report indicating if Shiga toxin-producing *Escherichia coli* was isolated will be issued to the submitting facility.
Streptococcus pneumoniae **Isolate Submission**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	Our laboratory participates in a project for the Antimicrobial Resistance Laboratory Network (ARLN). Isolate will be forwarded to the Minnesota Public Health Laboratory for serotyping and susceptibility testing. *A report with serotyping results is available upon request.
Vancomycin-Resistant/Intermediate ***Staphylococcus aureus*** **Confirmation**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	A report with susceptibility to vancomycin will be issued to the submitting facility.
Vibrio **Confirmation**	**Acceptable Specimen:** Pure isolate in appropriate tubed medium or Amies (with charcoal) transport medium. Plates not accepted.	A report with the organism identification will be issued to the submitting facility.

Bioterrorism Agent Testing

North Dakota Department of Health
Bioterrorism Agent Testing

Notify the Division of Microbiology and the Division of Disease Control if bioterrorism is suspected.

Notify the Division of Microbiology for referral instructions if your laboratory is unable to rule out BT agents.

Please refer to www.asm.org for the most current sentinel site laboratory rule out procedures.

After normal work hours, contact the on-call microbiologist directly at 701.400.2772, or if Bioterrorism is suspected call State Radio at 1-800-472-2121 to speak to the case manager.

There is No Charge for Bioterrorism Agent Testing.

Test	Source/Collection
Bacillus anthracis **(Anthrax) Confirmation PCR/Culture**	**Acceptable Specimen:** Isolate in appropriate tubed transport medium or cut out a piece of agar with growth and send in a sterile container. **Plates are not accepted.** Cutaneous collect in vesicular fluid with sterile swab or collect from beneath the eschar. Gastrointestinal collect blood, stool, or rectal swabs. Inhalational collect blood. **Transport:** Cutaneous, gastrointestinal and inhalational at room temperature. **Turn Around Time:** 1 to 2 days
Brucellosis Confirmation PCR/Culture	**Acceptable Specimen:** Isolate in appropriate tubed transport medium or cut out a piece of agar with growth and send in a sterile container. **Plates are not accepted.** For primary isolation and PCR, collect blood or bone marrow **Transport:** Room temperature **Turn Around Time:** 3 to 5 days
Burkholderia mallei **(Glanders) or** ***Burkholderia pseudomallei*** **(Melioidosis) PCR/Culture**	**Acceptable Specimen:** Isolate in appropriate tubed transport medium or cut out a piece of agar with growth and send in a sterile container. **Plates are not accepted.** **Transport:** Blood, bone marrow, sputum, abscess and wound swabs, urine transport blood room temp; all others transport at 2 to 8 °C. **Turn Around Time:** 1 to 2 days
Clostridium botulinum **toxin DIG ELISA/ PCR/Mouse Bioassay**	**Acceptable Specimen:** Contact the Division of Microbiology for specific recommendation regarding collection and transportation. **All testing will be performed by the Minnesota Department of Health and/or the Centers for Disease Control and Prevention.** **Turn Around Time:** Procedure dependent

Test	Source/Collection
Francisella tularensis **(Tularemia) Confirmation PCR/Culture**	**Acceptable Specimen:** Isolate in appropriate tubed transport medium or cut out a piece of agar with growth and send in a sterile container. **Plates are not accepted.** For primary isolation and PCR collect blood, biopsied tissue or ulcer scraping. **Transport:** Blood at room temperature Tissue and ulcer samples at 2 to 8°C **Turn Around Time:** 2 to 4 days
Ricin Toxin TRF	**Acceptable Specimen:** Liquid, soil, powder, wipes, swabs, paper, plant material and food samples **Turn Around Time:** 1 day
Smallpox/ Vaccinia PCR	**Acceptable Specimen:** Contact the Division of Microbiology for specific recommendation regarding collection and transportation. Specimens to collect include: Fluid and cells from two or more unroofed vesicles/pustules; a minimum of four touch preparation slides; two to four synthetic swabs in viral transport medium. Call the North Dakota Department of Health if you suspect smallpox, an adverse reaction to smallpox vaccination or require consultation on an unusual or pustular rash illness. **Confirmation for Smallpox will be performed by the Minnesota Department of Health and/or the Centers for Disease Control and Prevention**. The smallpox risk level should be clearly noted on the laboratory requisition form accompanying any specimen labeled as “vesicle,” “blister,” “rash,” or otherwise suggestive of acute/generalized vesicular or pustular rash illness. **Turn Around Time:** Preliminary PCR results within 1 day for vaccinia, VZV and non variola panel
Yersinia pestis **(Plague) Confirmation PCR/Culture**	**Acceptable Specimen:** Isolate in appropriate tubed transport medium or cut out a piece of agar with growth and send in a sterile container. **Plates are not accepted.** For primary isolation and PCR, collect blood, tissue aspirate or biopsied tissue. **Transport:** Blood at room temperature Tissue samples at 2 to 8°C **Turn Around Time:** 3 to 5 days

Specimen Collection and Handling

North Dakota Department of Health

Influenza Specimen Collection and Handling

Specimen Collection for Influenza:

Each specimen must be labeled with the patient's first and last name, date of birth, specimen source, and collection date.

Use only Dacron or rayon swabs with plastic or metal shafts. Calcium alginate swabs and cotton swabs with wooden shafts are **unacceptable.**

Nasopharyngeal Swab – Carefully swab the posterior nasopharyngeal area via the external nares with a dry sterile nasopharyngeal swab. Place the swab into viral transport medium. Screw the cap on tightly.

Nasal Swab – Insert dry swab into nasal passage and allow it to absorb secretions. Place swabs into viral transport medium. Screw the cap on tightly.

Throat Swab – Vigorously rub the posterior wall of the pharynx with a dry, sterile, swab. The swab should not touch the tongue or buccal mucosa. Place the swab into viral transport medium. Screw the cap on tightly.

Nasal Aspirate/Wash –Specimens are placed into viral transport medium. Screw the cap on tightly.

Lower Respiratory Tract Specimens – These specimens include bronchoalveolar lavage fluid, bronchial aspirates, bronchial washes, endotracheal aspirates, endotracheal washes, tracheal aspirates, and lung tissue. Place the sample into viral transport medium. Screw the cap on tightly.

Shipment of Influenza Specimens:

Ship specimens immediately following collection. Samples can be stored at 2-8°C for up to 7 days. All specimens should be shipped with ice packs in insulted containers. If a shipment will be delayed because of holidays or weekends, freeze and hold specimens at -70°C and ship on dry ice.

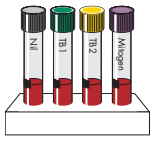
North Dakota Department of Health
Mycobacteria Collection and Handling

Source	Collection *Do not use fixatives or preservatives.*	Volume	*Container/Transport *Use sterile, leak-proof containers. Never mail cultures in petri dishes or specimens in urine cups.*
Body Fluids	Disinfect site with alcohol if collecting with syringe.	Abdominal 10 - 15ml Pericardial, Synovial 3 - 5ml CSF 2ml	Refrigerate at 2 to 8ºC
Blood and Bone Marrow	Disinfect site as for routine blood culture.	5 - 10ml	SPS (yellow top) is preferred. Sodium heparin may be used. No EDTA or other preservatives. Keep at room temperature.
Bronchial Wash	Avoid contaminating bronchoscope with tap water.	5 - 7ml	Refrigerate at 2 to 8ºC
Gastric	Collect a fasting early-morning specimen. Use sterile saline. If specimen transport is delayed >4hours from collection, add 100mg sodium carbonate or 4% NaOH immediately to neutralize the pH.	5 - 10ml	Refrigerate at 2 to 8ºC
Sputum	Aseptically collect a series of three sputum specimens, 8-24 hours apart, at least one of which is an early morning specimen. Collect the material that is brought up after a deep, productive cough. **Specimens collected <8 hours apart will be considered the same and only one processed.**	5 - 10ml **Do not pool specimens**	Ship specimens within 24 hours. Do not wait and send consecutively collected specimens together. Refrigerate at 2 to 8ºC
Stool	Collect without contaminating with urine.		Refrigerate at 2 to 8ºC
Swab	Not an acceptable specimen. The hydrophobic nature of the mycobacteria cell wall inhibits transfer of the organism from the swab to the aqueous media.		If only specimen available, add sufficient sterile saline to keep moist and send in sterile, leak proof container. Refrigerate at 2 to 8ºC
Tissue	Aseptically collect in sterile container without fixatives or preservatives. Add only enough sterile saline to prevent drying. Do not wrap in gauze or send on swab.	1gram	Refrigerate at 2 to 8ºC
Urine	First morning void collected on three consecutive days. Either clean-catch or catheterization. Do not pool specimens or obtain from catheter bag.	40 ml	Refrigerate at 2 to 8ºC

QuantiFERON®-TB Gold Plus — blood collection

Option 1: Draw blood directly into QFT®-Plus Blood Collection Tubes

Blood collection



1. Label QFT-Plus Blood Collection Tubes appropriately.

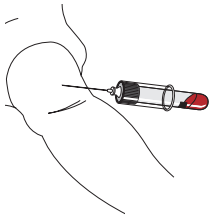
   Important: QFT-Plus Blood Collection Tubes should be at room temperature (17–25°C) at the time of blood collection.

2. Collect 1 ml of blood by venipuncture directly into each of the QFT-Plus Blood Collection Tubes.

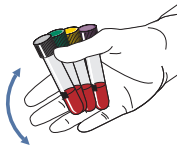
   2a. As 1 ml tubes draw blood relatively slowly, keep the tube on the needle for 2–3 seconds once the tube appears to have completed filling.

   2b. The black mark on the side of the tubes indicates the validated range of 0.8 to 1.2 ml. If the level of blood in any tube is outside of the indicator mark, a new blood sample should be obtained.

   2c. If a "butterfly needle" is being used to collect blood, a "purge" tube should be used to ensure that the tubing is filled with blood prior to the QFT-Plus Blood Collection Tubes being used.



Tube shaking



1. Immediately after filling the tubes, shake them ten (10) times just firmly enough to make sure the entire inner surface of the tube is coated with blood. This will dissolve antigens on tube walls.

   Important: Overly vigorous shaking may cause gel disruption and could lead to aberrant results.

Shipping and incubation

1. QFT-Plus tubes must be transferred to a 37°C ±1°C incubator within 16 hours of collection.
2. Option 1 – Incubate QFT-Plus Blood Collection Tubes at the blood collection site

   2a. If tubes are not incubated immediately after blood collection, remix tubes by inverting 10 times immediately prior to incubation.

   2b. Incubate tubes UPRIGHT at 37°C ±1°C for 16–24 hours.

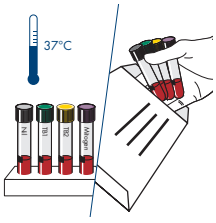
   Technical tip: Label tubes as "Incubated".

   2c. After incubation, tubes may be held between 4°C and 27°C for up to 3 days prior to centrifugation at the testing laboratory.

3. Option 2 – Incubate QFT-Plus Blood Collection Tubes at the testing laboratory

   3a. Ship tubes to the testing laboratory at 22°C ± 5°C.

   Technical tip: label tubes as "Not Incubated".

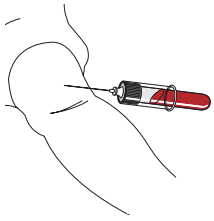


WARNING:
Standard blood handling precautions apply.

QIAGEN

Option 2: Draw blood into a lithium-heparin tube

Blood collection



1. Label lithium-heparin tubes appropriately

   Important: Tubes should be at room temperature (17–25°C) at the time of blood collection.

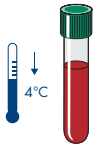
2. Fill a lithium-heparin blood collection tube (minimum volume 5 ml) and gently mix by inverting the tube several times to dissolve the heparin.

Shipping

1. Option 1 – Lithium-Heparin Tube Room Temperature Storage and Handling

1a. Blood collected in a lithium-heparin tube must be maintained at room temperature (22°C ± 5°C) for no more than 12 hours from the time of collection prior to transfer to QFT-Plus Blood Collection Tubes and subsequent incubation.

2. Option 2 – Lithium-Heparin Tube Refrigerated Storage and Handling



2a. Prior to refrigeration, blood drawn into a lithium-heparin tube must be held at room temperature (17–25°C) between 15 minutes and 3 hours after collection.

2b. Ship the lithium-heparin tube to the testing laboratory at 2–8°C.

2c. Blood drawn into lithium-heparin tube may be refrigerated (2–8°C) for 16 to 48 hours prior to transfer to QFT-Plus Blood Collection Tubes at the testing laboratory.

Transfer of blood specimen to QFT-Plus Blood Collection Tubes

1. Procedures for transferring blood specimen from lithium-heparin tubes to the QFT-Plus Blood Collection Tubes at the testing site are described in the QuantiFERON-TB Gold Plus – assay quick guide.

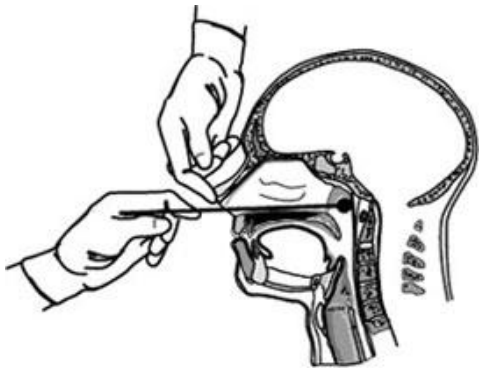
For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at **www.qiagen.com** or can be requested from QIAGEN Technical Services or your local distributor.

For comprehensive instructions for use, refer to the QFT-Plus ELISA package insert, available in multiple languages, at **www.QuantiFERON.com**.

SPECIMEN COLLECTION AND HANDLING INSTRUCTIONS FOR *BORDETELLA PERTUSSIS and PARAPERTUSSIS*

1. The *Bordetella species* collection kit, provided by the Division of Microbiology, includes:
    a. One universal transport media tube.
    b. One sterile Dacron® polyester-tipped swab suitable for the collection of nasopharyngeal specimens.

2. The specimen of choice is a nasopharyngeal swab in universal transport media. (See picture below for proper collection of specimens)



    a. Place the swab in the universal transport media.
    b. Cut the excess length of the wire shaft of the swab with a clean scissors and cap the tube tightly.
    c. Label the tube with the patient's name and date of birth.

3. Return the universal transport media to the zip-lock plastic biohazard bag that contained the collection supplies.

4. Complete a Laboratory Test Request Form with the requested information. Be sure to complete the Patient Data section (symptoms and immunization history). Select the test "*Bordetella species* HDA."

5. Place the specimen (in the biohazard bag) and the completed request form into a category B shipping container provided by the Division of Microbiology.

6. Send within 4 days refrigerated to:

Division of Microbiology
2635 East Main Avenue
Bismarck, ND 58506

Chlamydia and Gonorrhea Specimen Collection and Transport Guide

For *m*ulti-Collect™ Specimen Collection Kit

Each *m*ulti-Collect Specimen Collection Kit Contains:

- One capped Transport Tube (AB800) containing 1.2 ml Specimen Transport Buffer (guanidine thiocyanate in Tris buffer)
- One sterile Specimen Collection Swab (CD655)
- One disposable Transfer Pipette

Urine and Swab Specimen Storage and Transport:

- After collection, transport and store transport tube at 2°C to 30°C for up to 14 days.
- If longer storage is needed, store at -10°C or colder for up to 90 days.

For domestic or international shipments, specimens should be packaged and labeled in compliance with applicable state, federal, and international regulations covering the transport of clinical, diagnostic, or biological specimens. It is recommended that each tube be placed in an individual, sealable bag prior to transport.

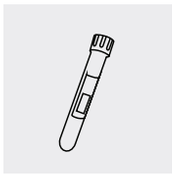
*m*ulti-Collect Urine Collection Procedure

Urine Specimen Collection

1. The patient should not have urinated for at least one hour prior to sample collection.

2. Discard specimen collection swab; it is not required for urine specimen collection.
3. Using a urine specimen collection cup,* the patient should collect the first 20 to 30 mL of voided urine (the first part of the stream).

*Not included in the *m*ulti-Collect Specimen Collection Kit



4. Unscrew the transport tube cap, taking care not to spill the transport buffer within.
5. Handle the cap and tube carefully to avoid contamination, including the outside of the transport tube and cap. If necessary, change gloves.
6. Use the plastic transfer pipette to transfer urine from the collection cup into the transport tube until the liquid level in the tube falls within the clear fill window of the transport tube label or else a new specimen should be collected. Do not overfill. Slightly more than one full squeeze of the transfer pipette bulb may be required to transfer the necessary volume of urine specimen.
7. Recap the transport tube carefully. Ensure the cap seals tightly.
8. Label the transport tube with sample identification information, including date of collection using an adhesive label. Take care not to obscure the fill window on the transport tube.
9. Decontaminate and dispose of all specimens, reagents, and other potentially contaminated materials in accordance with local, state, and federal regulations.[1-2]

INTENDED USE

The Abbott *m*ulti-Collect Specimen Collection Kit is intended for the collection and transportation of male and female, swab and urine specimens for the detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae* per instructions provided. Refer to the specimen collection procedure in the package insert for specimen collection instructions for specific sample types. Self-collected vaginal swab specimens are an option for screening women when a pelvic exam is not otherwise indicated. The Abbott *m*ulti-Collect Specimen Collection Kit is not intended for home use.

LIMITATIONS OF THE PROCEDURE

- Optimal performance of this kit requires appropriate specimen collection, handling, preparation, and storage.
- This kit should only be used to collect swab samples from the cervix, the vagina, the male urethra, or urine specimens from males and females for testing with the Abbott RealTi*m*e CT/NG assay. Other uses of this kit have not been validated.
- The performance of Urine and Swab specimens has not been evaluated in men or women less than 18 years of age.
- The collection of samples from pregnant women using the *m*ulti-Collect Specimen Collection Kit should be under the guidance of an obstetrical provider or family physician.
- Vaginal swab sampling is not designed to replace cervical exams for diagnosis of female urogenital infections. Patients may have cervicitis, urethritis, urinary tract infections, or vaginal infections due to other causes or concurrent infections with other agents.
- Women who have symptoms suggesting pelvic inflammatory disease (PID) should not use the self-collected vaginal swab specimen as a replacement for a pelvic exam.
- The self-collected vaginal swab specimen application is limited to health care facilities where support and counseling is available to explain the procedures and precautions.

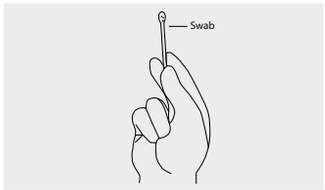
For In Vitro Diagnostic Use

FOR WARNINGS AND PRECAUTIONS SEE REVERSE.

Abbott
A Promise for Life

*m*ulti-Collect™ Swab Collection Procedure

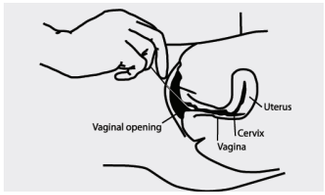
Female Swab Specimen Collection



CLINICIAN COLLECTED VAGINAL AND ENDOCERVICAL

CAUTION: Do NOT expose swab to Transport Buffer prior to collection.

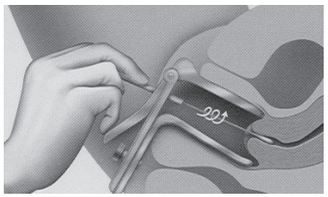
1. Discard disposable transfer pipette; it is not required for vaginal swab specimen collection.
2. Remove the sterile swab from the wrapper, taking care not to touch swab tip or lay it down on any surface.



CLINICIAN COLLECTED VAGINAL

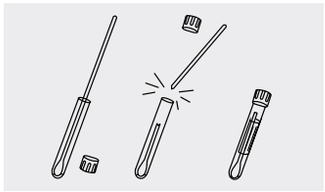
3. Insert the white tip of the specimen collection swab about two inches (5 cm) into the opening of the vagina.
4. Gently rotate the swab for 15 to 30 seconds against the sides of the vagina.
5. Withdraw the swab carefully.

-OR-



ENDOCERVICAL

3. Insert the white tip of the specimen collection swab into the endocervix canal.
4. Gently rotate the swab for 15 to 30 seconds to ensure adequate sampling.
5. Withdraw the swab carefully.



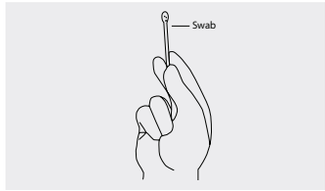
CLINICIAN COLLECTED VAGINAL AND ENDOCERVICAL

6. Handle the cap and tube carefully to avoid contamination, including the outside of the transport tube and cap. If necessary, change gloves.
7. Unscrew the transport tube cap and immediately place the specimen collection swab into the transport tube so that the white tip is down.
8. Carefully break the swab at the scored line on the shaft; use care to avoid splashing of contents.
9. Recap the transport tube. Ensure the cap seals tightly.
10. Label the transport tube with sample identification information, including date of collection using an adhesive label.

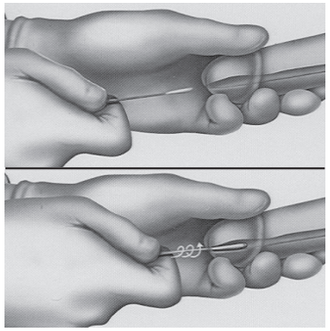
Male Urethral Swab Specimen Collection

CAUTION: Do NOT expose swab to Transport Buffer prior to collection.

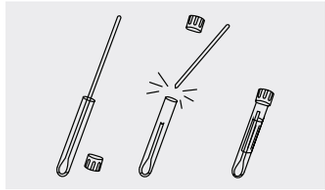
1. The patient should not have urinated for at least one hour prior to sample collection.



2. Discard disposable transfer pipette; it is not required for male urethral swab specimen collection.
3. Remove the sterile swab from the wrapper, taking care not to touch swab tip or lay it down on any surface.



4. Insert the white tip of the specimen collection swab 3/4 to 1 1/2 inches (2 to 4 cm) into the uretha.
5. Gently rotate the swab for 2 to 3 seconds to ensure adequate sampling.
6. Withdraw the swab carefully.



7. Handle the cap and tube carefully to avoid contamination, including the outside of the transport tube and cap. If necessary, change gloves.
8. Unscrew the transport tube cap and immediately place the specimen collection swab into the transport tube so that the white tip is down.
9. Carefully break the swab at the scored line on the shaft; use care to avoid splashing of contents.
10. Recap the transport tube. Ensure the cap seals tightly.
11. Label the transport tube with sample identification information, including date of collection using an adhesive label.

WARNINGS AND PRECAUTIONS

1. Do not use the Abbott *m*ulti-Collect Specimen Collection Kit if the package is damaged, the seal is broken or if buffer has leaked from the tube. Discard unused, damaged, or leaking kits in accordance with local, state, and federal regulations.
2. Do not use the Abbott *m*ulti-Collect Specimen Collection Kit beyond its expiration date.
3. Optimal performance of the Abbott RealTi*m*e CT/NG assay requires adequate specimen collection and handling. Ensure the outside of the transport tube and cap are not contaminated.
4. Use only the orange shaft swab provided in the Abbott *m*ulti-Collect Specimen Collection Kit for collecting swab specimens. The swab must remain in the Transport Tube after specimen collection. Do not place multiple swabs or a combination of swab and urine in the Transport Tube.
5. Add urine to the Transport Tube until the liquid level falls within the fill window on the tube label or else a new specimen should be collected.
6. The plastic transfer pipette provided in the *m*ulti-Collect Specimen Collection Kit is not sterile.
7. The presence of blood, mucus, some spermicidal agents, feminine powder sprays, and treatments for vaginal conditions such as yeast infection may interfere with nucleic acid test (NAT) based assays. The effects of other factors such as vaginal discharge, use of tampons, douching, or specimen collection variables have not been determined.

CAUTION: This product requires the handling of human specimens. It is recommended that all human sourced materials be considered potentially infectious and handled with appropriate biosafety practices.

For In Vitro Diagnostic Use

For additional information, please visit www.abbottmolecular.com

99-1093

Abbott Molecular

Collection instructions for Mumps virus testing

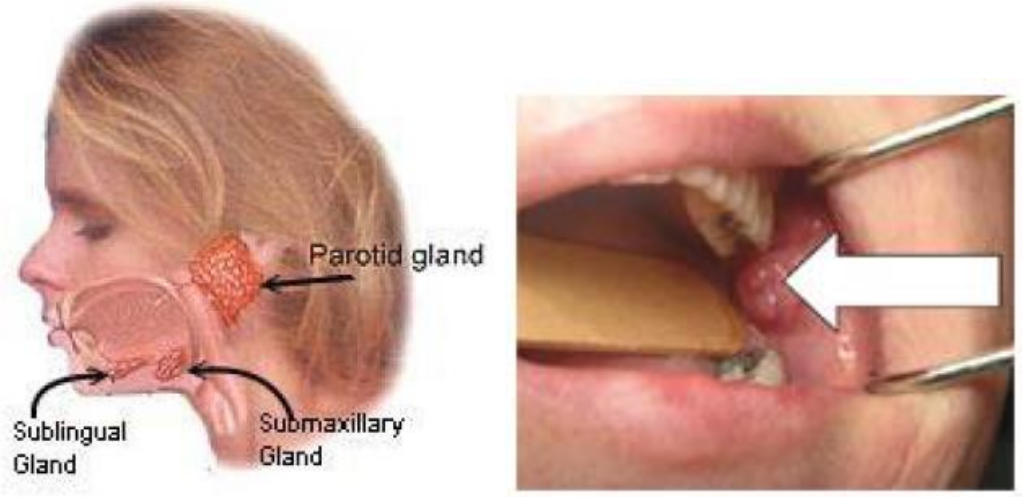
Preferred specimen: Parotid gland duct swab for viral culture collected within 5 days of onset of symptoms.

Collection of a mumps specimen for viral and PCR testing:

- Massage the parotid (salivary) glands for 30 seconds.
- Swab the buccal cavity, which is the space near the upper rear molars between the cheek and the teeth. Swab the area between the cheek and gum by sweeping the swab near the upper molar to the lower molar area.

Specimen Preparation: Swabs should be placed in 2 ml of standard viral transport medium. Allow the swab to remain in VTM for at least 1 hour (4°C). Ream the swab around the rim of the tube to retain cells and fluid in the tube. The swab can be broken off and left in the tube or discarded.

Storage and Shipment: Following collection, samples should be maintained at 4°C and shipped on cold packs (4°C) within 24 hours. If there is a delay in shipment, the sample is best preserved by freezing at −70°C. Frozen samples should be shipped on dry ice.



Reference: Centers for Disease Control and Prevention https://www.cdc.gov/mumps/lab/detection-mumps.html